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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,473	12/17/2001	Gregory Moulton		3633

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Thomas A. O'Rourke
Bodner & O'Rourke LLP.
425 broadhollow Rd., Ste. 108
Melville, NY 11747

EXAMINER	
HOOK, JAMES F	

ART UNIT	PAPER NUMBER
3754	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,473	MOULTON ET AL.	
	Examiner	Art Unit	
	James F. Hook	3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26 and 27* is/are allowed.

6)☐ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8, 12, 14, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Pavlic (750). The reference to Pavlic discloses the recited flexible hose for carrying fluids comprising ends of the hose, the hose is in the retracted position when no tensile force is place on an end as seen in figures 2 and 3, a thermoplastic cover 21 having a helical member 25 adhered to the cover, the helical member can carry electricity being formed of steel wire including extra wires 27 and 28 embedded in the cover which is a single layer, the hose has peaks and valleys formed by corrugations where the valleys are virtually eliminated as seen in figure 2 when the hose is in the contracted state, the valleys are U shaped, and the valleys get wider as the hose is stretched but at least the upper part of the sidewalls stays "generally" the same, there is only a single helical member of constant pitch, the second wires are next to the first wire on one side where there is no requirement that they be helically disposed, and it is inherent that the cover layer would have to be extruded since there are no seams suggesting a wrapped method of forming the outer layer and there is no other known way to form a seamless outer tubular layer other than extrusion, however, such is also merely a method step in an article claim, and would not make the outer

layer materially different from that shown in Pavlic and would have little patentable weight on a product claim.

Claims 15, 21, 22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Pavlic (474). The reference to Pavlic discloses the recited flexible hose for carrying fluids comprising ends of the hose, the hose is in the retracted position when no tensile force is place on an end as seen in figures 2, a thermoplastic cover 14 having a helical member 12 adhered to the cover, the helical member can carry electricity being formed of steel wire 19 including extra wire 21, the hose has peaks and valleys formed by corrugations where the valleys are virtually eliminated as seen in figure 2 when the hose is in the contracted state, the valleys are U shaped, and the valleys get wider as the hose is stretched but at least the upper part of the sidewalls stays "generally" the same, there is only a single helical member of constant pitch, the wires are connected to a switch to control the motor of the vacuum via electricity, the second wire is next to the first wire, and it is inherent that the cover layer would have to be extruded since there are no seams suggesting a wrapped method of forming the outer layer and there is no other known way to form a seamless outer tubular layer other than extrusion, however, such is also merely a method step in an article claim, and would not make the outer layer materially different from that shown in Pavlic and would have little patentable weight on a product claim.

Claims 15-17, 19, 21, 22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Duff (264). The reference to Duff discloses the recited flexible hose for carrying fluids comprising ends of the hose, the hose is in the retracted position when

no tensile force is place on an end as seen in figure 2, a thermoplastic cover 21 having a helical member 20 adhered to the cover, the helical member can carry electricity being formed of steel wires 25,26 (col. 4, lines 33-40) which can also be copper or aluminum clad steel wires, the hose has peaks and valleys formed by corrugations where the valleys are virtually eliminated as seen in figure 2 when the hose is in the contracted state, the valleys are U shaped, and the valleys get wider as the hose is stretched but at least the upper part of the sidewalls stays "generally" the same, there is only a single helical member of constant pitch, the wires are connected to a switch to control the motor of the vacuum via electricity (col. 2, lines 45-58), the second wire is next to the first wire, the covering over the wires forming the helical member is in a figure 8 shape as seen in figure 2, and it is inherent that the cover layer would have to be extruded since there are no seams suggesting a wrapped method of forming the outer layer and there is no other known way to form a seamless outer tubular layer other than extrusion, however, such is also merely a method step in an article claim, and would not make the outer layer materially different from that shown in Duff and would have little patentable weight on a product claim.

Claims 15-17, 19, 21, 22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimoto. The patent to Fujimoto discloses the recited flexible hose for carrying fluids comprising ends of the hose, the hose is in the retracted position when no tensile force is place on an end as seen in figures 1 and 3, a thermoplastic cover 3 having a helical member 5 adhered to the covers inner surface, the helical member can carry electricity being formed of wires, the hose has peaks and valleys formed by

corrugations where the valleys are virtually eliminated as seen in figures 1 and 3 when the hose is in the contracted state, the valleys are U shaped, the valleys get wider as the hose is stretched but at least the upper part of the sidewalls stays "generally" the same, including having a second conductive wire 6, where the wire 6 can be resin coated copper wire where the resin is the same as used for the cover, a steel wire 5 can also be provided, and the cross section of the wires in figure 1 form a shape that is a "figure 8", the wires can be stranded copper wires, or copper clad steel wires. With respect to claims 21 and 24, the patent to Fujimoto discloses the recited structure in article claims but is unclear as to the method used to form the outer layer, however, such is considered to be a method step in an article claim which would not materially change the final product, and since the article limitations are met by the reference it is being rejected under both 102/103 pending evidence to the contrary that the final product of Fujimoto would be different using a different method to form the outer layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18, 20, 21, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto, Pavlic (474), or Duff (264). The patents to Fujimoto, Duff, and Pavlic disclose all of the recited structure with the exception of disclosing

dimensions of the peaks and distances they are spaced, amount of extension, specific gauges of the wires used, forming the outer layer by extrusion and using stranded copper wires. It is considered obvious choices of mechanical expedients to use routine experimentation to arrive at optimum values for the intended use of the hose, including choosing the needed gauge of wire, and various sizes of the peaks and gaps to meet the needs of the user. The use of stranded copper wire over solid copper is considered old and well known, to substitute a stranded wire for a solid to achieve more flexibility. It would have been obvious to one skilled in the art to modify the copper wire in Fujimoto, Duff, or Pavlic to be stranded copper wire to provide more flexibility, to use any gauge wire that is required for the current to be carried as such is an obvious choice of mechanical expedients, and to form the values and gaps of any size, or amount of extension, as such is merely a choice of mechanical expedients. It is believed that the patent to Fujimoto, Duff, and Pavlic meet the claimed structure above and that the method step does not provide any further limitations to the article claim in that the method would not change the final product, however, should it be successfully argued that the method step should hold patentable weight, and further in that Duff and Pavlic inherently can't be formed by extrusion, it is considered that such is merely a choice of mechanical expedients where it is old and well known to form tubes of any methods including winding tape layers or extruding and such would only require routine skill in the art to use whichever method proved cheaper and easier.

Claims 5, 10, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlic (750). The patent to Pavlic discloses all of the recited structure including

forming the second wires of stranded copper wire, with the exception of disclosing dimensions of the peaks and distances they are spaced, amount of extension, and specific gauges of the wires used. It is considered obvious choices of mechanical expedients to use routine experimentation to arrive at optimum values for the intended use of the hose, including choosing the needed gauge of wire, and various sizes of the peaks and gaps to meet the needs of the user. It would have been obvious to one skilled in the art to modify the copper wire in Pavlic to use any gauge wire that is required for the current to be carried as such is an obvious choice of mechanical expedients, and to form the values and gaps of any size, or amount of extension, as such is merely a choice of mechanical expedients.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duff (264) in view of Duff (891). The 264 patent discloses all of the recited structure with the exception of disclosing dimensions of the peaks and distances they are spaced, amount of extension, specific gauges of the wires used, embedding the conductive wire in the thermoplastic cover, and using stranded copper wires. The 891 patent discloses that it is old and well known to embed the spiral wire 13 with the wall 11. The 264 patent already discloses that the spiral reinforcement includes additional conductive wires in the same structure as the spiral reinforcement. It would have been obvious to modify the structure of the spiral reinforcement in 264 including the conductive wires to be embedded in the wall of the liner as suggested by 891 where such would insure that the coils will not be displaced from one corrugation to another thereby preventing failure and saving money in replacement or repair costs. It is considered obvious choices of

mechanical expedients to use routine experimentation to arrive at optimum values for the intended use of the hose, including choosing the needed gauge of wire, and various sizes of the peaks and gaps to meet the needs of the user. The use of stranded copper wire over solid copper is considered old and well known, to substitute a stranded wire for a solid to achieve more flexibility. It would have been obvious to one skilled in the art to modify the copper wire in 264 to be stranded copper wire to provide more flexibility, to use any gauge wire that is required for the current to be carried as such is an obvious choice of mechanical expedients, and to form the values and gaps of any size, or amount of extension, as such is merely a choice of mechanical expedients.

Allowable Subject Matter

Claims 26 and 27 are allowed.

Response to Arguments

Applicant's arguments filed August 18, 2005 have been fully considered but they are not persuasive. Many of the arguments are rendered moot by the dropping of certain claims from the rejections, or in light of new rejections under newly applied prior art. With respect to the patents to Pavlic with respect to the extensibility of the hose being 2-6 times, such is not persuasive with regards to the claims still rejected under Pavlic in that this limitation is not found in the claims still rejected under Pavlic 474, and with respect to the limitation added to certain claims with respect to the feature of embedding the conductive wire in the thermoplastic layer is not persuasive where the

claims containing this limitation have been dropped from the rejection, and the remaining claims still rejected under the 474 reference do not contain this limitation. With respect to Duff 264 such is also moot with respect to the embedding of the wire language, where the claims containing this limitation have been dropped from the rejection, and the remaining claims are still rejected based on the absence of this limitation, and any argument directed toward extensibility is not persuasive when the hose in Duff is extensible when pulled upon, there is no structure preventing this inherent property of the hose. Duff 264 and Pavlic 474 both teach single layer outer cover layers. With respect to Fujimoto, the limitation of a single wall is considered covered in that the outer layer is a single layer, the only place where it appears to have more than one layer is where it overlaps itself but such is still a single layer, and meets the claim language where the limitation of "consisting essentially of" is not any further limiting than the term "comprising" if such would not change the final effect, and it is considered an overlapped portion of a single layer is not changing the final product of the hose. With respect to arguments directed to embedding or the reading of the inner layer as part of the outer wall is not persuasive where claims to embedding are not still rejected and the inner wall is merely additional structure not required to meet the limitations of the claim when such does not materially affect the tube functioning, therefore the addition of the "consisting essentially of" language does not preclude there being an additional inner layer provided in the tube structure, where such is not considered by the examiner to be part of the outer cover layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James F. Hook
Primary Examiner
Art Unit 3754

JFH